

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

orney Docket No.:

MGU-0025

Inventors:

Damha et al.

Serial No.:

10/748,475

Filing Date:

December 30, 2003

Examiner:

Not Yet Assigned

Group Art Unit:

1635

Title:

Compositions and Methods for Inhibiting

RNase H Activity of Retroid Reverse

Transcriptase

I, Jane Massey Licata, Registration No. 32,257, certify that this correspondence is being deposited with the U.S. Postal Service as First Class mail in an envelope addressed to the Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450

On this date: October 1, 2004

John Massey Licata, Registration No. 32,257

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

(XX) In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified

application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

- () In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, therefore:
 - () Certification in Accordance with §1.97(e) is attached hereto; or
 - () Authorization to charge Deposit Account No. 50-1619 the fee of \$180.00 as set forth in §1.17(p) is provided.
- () In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in §1.17(I)(1).
- (XX) Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.

() In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified) are not enclosed herewith because they were previously submitted to the U.S. Patent and Trademark Office in prior application Serial No. ______, filed _______, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

- () The relevance of the listed references in a foreign language is as stated in the specification at pages @@.
- (XX) All listed references are in the English language.

Respectfully submitted,

Jawasylear

Jane Massey Licata Registration No. 32,257

Date: October 1, 2004

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Sheet 01 of 02

Form PTO-1449 Modified

List of Patents and Publications
Cited by Applicant
(Use several sheets if necessary)

U.S. Department of Commerce

	Serial No.
MGU-0025	10/748,475

Applicant

Damha et al.

Filing Date Group
December 30, 2003 1635

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AA	Andreola et al., "DNA Aptamers Selected against the HIV- 1 Rnase H Display in Vitro Antiviral Activity", Biochemistry 2001 40:10087-10094
AB	Borkow et al., "Inhibition of the Ribonuclease H and DNA Polymerase Activities of HIV-1 Reverse Transcriptase by N-(4-tert-Butylbenzoyl)2-hydroxy-1-naphthaldehyde Hydrazone", Biochemistry 1997 36:3179-3185
AC	Chen et al., "Selection of High-Affinity RNA Ligands to Reverse Transcriptase: Inhibition of cDNA Synthesis and RNASE H Activity", Biochemistry 1994 33:8746-8756
AD	Clusel et al., "Ex vivo regulation of specific gene expression by nanomolar concentration of double-stranded dumbbell oligonucleotides", Nucleic Acids Research 1993 21(15):3405-3411
AE	Hannoush et al., "Remarkable Stability of Hairpins Containing 2',5'-Linked RNA Loops", J. Am. Chem. Soc. 2001 123:12368-12374
AF	Lim et al., "Sequence-independent inhibition of RNA transcription by DNA dumbbells and other decoys", Nucleic Acids Research 1997 25(3):575-581
AG	Loya et al., "Illimaquinone, a Selective Inhibitor of the RNase H Activity of Human Immunodeficiency Virus Type 1 Reverse Transcriptase", Antimicrobial Agents and Chemotherapy 1990 34(10):2009-2012
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EXAMINER

DATE CONSIDERED

Serial No. Docket No. Form PTO-1449 Modified 10/748,475 MGU-0025 List of Patents and Publications Applicant Cited by Applicant Damha et al. (Use several sheets if necessary) Filing Date Group U.S. Department of Commerce December 30, 2003 1635 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Park et al., "Inhibition of HIV-1 Replication by a New Type of ΑJ Circular Dumbbell RNA/DNA Chimeric Oligonucleotides", Biochemical and Biophysical Research Communications 2000 270:953-960 AΚ Tan et al., "Inhibition of the RNASE H Activity of HIV Reverse Transcriptase by Azidothymidylate", Biochemistry 1991 30(20):4831-4835 Tarrago-Litvak et al., "Inhibitors of HIV-1 Reverse Transcriptase ALand Integrase: Classical and Emerging Therapeutical Approaches", Current Pharmaceutical Design 2002 8:595-614 Wasner et al., "Physicochemical and Biochemical AM r r Properties of 2',5'-Linked RNA and 2',5':3',5'-RNA "Hybrid" Duplexes", Biochemistry 1998 37:7478-7486 Gao et al., "Phosphorothioate Oligonucleotides Are Inhibitors AN of Human DNA Polymerases and RNase H:Implications for Antisense Technology" Molecular Pharmacology 1992 41:223-229 Zhan et al., "Catalytically Distinct conformations of the Ribonuclease H of AΟ HIV-1 Reverse Transcriptase by Substrate Cleavage Patterns and Inhibition by Azidothymidylate and N-Ethylmaleimide", Biochemistry 1994 33:1366-1372 **EXAMINER** DATE CONSIDERED